

REMARKS

Reconsideration and allowance are respectfully requested. Claims 25, 33, 35, 40-42, 45, 47, 63, 64, 66, and 79-82 have been amended. Claims 1-24, 26-32, 36, 51, 67, 67, and 75-77 have been cancelled. Claims 83-97 are new. Thus, claims 2533-35, 37-50, 52-66, 69-74 and 78-97 are pending.

The Applicant thanks the Examiner for making himself available for the telephone interviews with the Applicant. The Applicant has amended its claims in accordance with the discussions with the Examiner and has added new claims depending from claim 79 that correspond to claims that depend from claim 25. The arguments made during the interviews are presented below for the record. Each of the objections raised in the office action are addressed below.

The Examiner objected to the Applicant's amendment of December 29, 2005 under 35 U.S.C. 132(a) on the basis that the amendment introduced new matter into the disclosure. The subject matter referred to by the Examiner relates to passages describing "an internal combustion engine". The Applicant submits, however, that such subject matter is supported by the specification and, in particular, by claim 20 of the application as originally filed which states "wherein said user is an internal combustion engine for a vehicle". The Applicant submits that the claims form part of the specification of the application as originally filed and, thus, the amendment objected to by the Examiner is adequately supported. The Applicant therefore requests that the Examiner withdraw its objection to the identified subject matter.

The Examiner objected to claim 31 under 37 C.F.R. 1.75(c) as being of improper dependant form. This objection is no longer applicable as Applicant has cancelled claim 31.

The Examiner objected to claim 43 under 35 U.S.C. 112 on the basis that the subject matter is not adequately described in the specification. For reasons outlined above, the Applicant respectfully submits that claim 20 of the claims as originally submitted with the application states "wherein said user is an internal combustion engine for a vehicle". The Applicant submits that a hydrogen conversion device is one form of user as contemplated by the specification (see

page 5, lines 21-26) and thus claim 43 meets the requirements under 35 U.S.C. 112. The Applicant requests that this objection be withdrawn by the Examiner.

The Examiner rejected claims 25, 31-35, 37-50, 52-66, 69-74, and 78-82 under 35 U.S.C. 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

In respect to the Examiner's rejection of claims 25, 50, 52, 54, 55, 62, 64, 66, 79, and 82 the Applicant has further amended its claims to remove the reference to the "use" of the hydrogen energy system and thus submits that there is no suggestion that the claim is directed to a method or process.

In respect to the Examiner's rejection of claims 31 and 32, the Applicant has cancelled these claims and thus the objection is no longer applicable.

In respect to the objection to claim 33 the Applicant has deleted the reference to said controller inputs being "received and processed by said controller for controlling the generation of hydrogen". The Applicant submits that there is sufficient antecedent basis for the claim as amended.

In respect to the objection to claim 66, the Applicant has replaced the reference to the term "electricity" with the term "electrical energy". The Applicant respectfully submits that there is sufficient antecedent basis for the claim as amended.

In respect to the Examiner's rejection of claim 41, the Applicant submits that the claim does not positively recite a "system comprising a vehicle" as suggested by the Examiner. The claim is directed to a system that includes (among other things) a hydrogen delivery system for delivering hydrogen to a hydrogen user where the hydrogen user includes a hydrogen conversion device for powering a vehicle. The Applicant respectfully submits that there is no ambiguity between the provision of a hydrogen energy system for a facility disposed off board a vehicle which includes a hydrogen delivery system for delivering hydrogen to a vehicle. The Applicant has further amended claim 41 to clarify the subject matter and submits that the amended claim is allowable under 35 U.S.C. 112.

The Examiner rejected claims 25, 50, 52, 54, 55, 62, 64, 66, 79, and 82 under 35 U.S.C. 101 on the basis that there was a claimed recitation of a use that resulted in the improper definition of a process. The Applicant has amended its claims to clarify that the subject matter is directed to a system and not to a process. The Applicant submits that the claims as amended are allowable under 35 U.S.C. 101.

The Examiner rejected claims 25, 31-35, 37-44, 47, 57, 58, 66, 71-74, 79, 80, and 81 under 35 U.S.C. 102(b) in view of US Patent 5,346,778 to Ewan.

The Ewan reference is directed to a load management system for hydrogen oxygen fuel cells provided for powering vehicles. The system is disposed on board a vehicle and provides for the electrolysis of water during operation of the vehicle based upon power generated upon deceleration or braking of the vehicle itself or by excess power from the on-board fuel cell. The system claimed by the Applicant has an entirely different application and the Applicant has amended its independent claims to clarify that its hydrogen energy system is provided for a facility that is disposed off-board a vehicle and wherein hydrogen is generated by water electrolysis using an external source of electrical energy. The Applicant further submits that Ewan does not disclose a controller that controls the generation of hydrogen based upon control inputs including data concerning one or more demands for hydrogen from one or more hydrogen users as claimed by Applicant. The Examiner submits that the voltage sensors indicating when power load on the fuel cells is not at or above maximum is data concerning hydrogen demand. The Applicant respectfully submits that this is not data concerning demands for hydrogen from a hydrogen user however. It is merely data relating to the status of the power load on the fuel cells. Accordingly, the Applicant respectfully submits that Ewan does not disclose nor suggest all of the subject matter disclosed in the Applicant's claims as amended. For at least these reasons the Applicant respectfully submits that the claims as amended are allowable over the Ewan reference.

The Examiner rejected claims 25, 31-34, 40-44, 46, 47, 53, 56, 57, 58, 66, 72-74, 79, 81, and 82 35 U.S.C. 102(b) as being anticipated by European Publication No. 0755088 to Oki.

The Oki reference is directed to a regenerative power system that functions as a load for storing energy when electrical power is in excess of the required load at a power plant, a ground

substation or a car. The system includes a regenerative control means that operates a water electrolysis device to generate and store at least hydrogen in instances when the supply of electric power exceeds the electric power required by the load. The system disclosed in Oki does not control the generation of hydrogen based upon the demand for hydrogen from one or more hydrogen users however. In other words, the Oki reference provides only for the control of the generation of hydrogen based upon the demand for electricity by the load. The Examiner cites claim 2 of Oki that states, “operating said water electrolysis device and storing up at least the hydrogen between the generated hydrogen and oxygen to said storage device according to demand...” However, this “demand” is not a demand for hydrogen, as the Examiner contends, but is a demand for electricity by the load. Further reading of claim 2 defines the demand by reciting, “...when the electric power that is supplied from said electric power generation means falls below the electric power consumed by the load.” Thus it is clear that the demand of Oki is the demand for electricity by the load (see also paragraph [0016] of Oki). Accordingly, the Applicant respectfully submits that Oki does not disclose nor suggest all of the subject matter disclosed in the Applicant’s claims as amended. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the Oki reference.

The Examiner rejected claims 45, 46, 48, 49, 54, 59-63 under 35 U.S.C. 103 as being unpatentable over Ewan and further in view of US Patent 5,592,028 to Pritchard.

The Applicant repeats the arguments presented above in respect to the Ewan reference and submits that the combined references do not disclose nor suggest all of the subject matter disclosed in the Applicant’s claims as amended. The Applicant further submits that there is no suggestion or motivation to combine the on-board system as taught by Ewan with the wind power system taught by Pritchard. The Applicant respectfully submits that the arguments presented by the Examiner in this regard fail to point specifically to any support in the references themselves or to specific knowledge of a person skilled in the art to combine the references. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the cited references.

The Examiner rejected claims 53, 55, 56, 64, 65, and 82 under 35 U.S.C. 103(a) as being unpatentable over Ewan or Pritchard and further in view of US Patent 5,432,710 to Ishimaru.

The Applicant repeats the arguments presented above in respect to the Ewan and Pritchard references and submits that the combined references do not disclose nor suggest all of the subject matter disclosed in the Applicant's claims as amended. The Applicant further submits that there is no suggestion or motivation to combine the on-board system as taught by Ewan and the wind power system taught by Pritchard with the energy supply system taught by Ishamuru. The Applicant respectfully submits that the arguments presented by the Examiner in this regard fail to point specifically to any support in the references themselves or to specific knowledge of a person skilled in the art to combine the references. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the cited references.

The Examiner rejected claims 69 and 70 under 35 U.S.C. 103(a) as being unpatentable over Ewan and further in view of US Patent 5,817,157 to Checketts.

The Applicant repeats the arguments presented above in respect to the Ewan reference and submits that the combined references do not disclose nor suggest all of the subject matter disclosed in the Applicant's claims as amended. The Applicant further submits that there is no suggestion or motivation to combine the on-board system as taught by Ewan with the pelletized hydrogen fuel system taught by Checketts. The Applicant respectfully submits that the arguments presented by the Examiner in this regard fail to point specifically to any support in the references themselves or to specific knowledge of a person skilled in the art to combine the references. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the cited references.

The Examiner rejected claims 50, 52, 53, and 82 under 35 U.S.C. 103(a) as being unpatentable in view of Ewan and further in view of US Patent 6,102,958 to Meystel.

The Applicant repeats the arguments presented above in respect to the Ewan reference and submits that the combined references do not disclose nor suggest all of the subject matter disclosed in the Applicant's claims as amended. The Applicant further submits that there is no suggestion or motivation to combine the on-board system as taught by Ewan with power plant planning and control system taught by Meystel. The Applicant respectfully submits that the arguments presented by the Examiner in this regard fail to point specifically to any support in the references themselves or to specific knowledge of a person skilled in the art to combine the

references. The Examiner submits that the Applicant's previous arguments failed to comply with 37 CFR 1.111(b) on the basis that they did not specifically point out how the language of the claims patentably distinguishes from the reference. The Applicant respectfully submits that its previously presented arguments were sufficient to address the Examiner's objection and in particular the Applicant argued that the Examiner failed to point to any specific portion of Meystel that taught the subject matter that the Examiner suggested was taught by the reference. In the Examiner's most recent office action the Examiner has identified additional portions of Meystel in support of the Examiner's argument. The Applicant thanks the Examiner for directing the Applicant to the passages that the Examiner is relying upon in support of its arguments. The Applicant remains of the view however that the references do not teach all of the elements of the claims and furthermore that there is no motivation to combine the references. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the cited references.

The Examiner rejected claims 50, 52, 53, 78, and 82 under 35 U.S.C. 103(a) as being unpatentable over Ewan and further in view of US Patent 5,818,725 to McNamara.

The Applicant repeats the arguments presented above in respect to the Ewan reference and submits that the combined references do not disclose nor suggest all of the subject matter disclosed in the Applicant's claims as amended. The Applicant further submits that there is no suggestion or motivation to combine the on-board system as taught by Ewan with the system for utility demand monitoring taught by McNamara. The Applicant respectfully submits that the arguments presented by the Examiner in this regard fail to point specifically to any support in the references themselves or to specific knowledge of a person skilled in the art to combine the references. The Examiner submits that the Applicant's previous arguments failed to comply with 37 CFR 1.111(b) on the basis that they did not specifically point out how the language of the claims patentably distinguishes from the reference. The Applicant respectfully submits that its previously presented arguments were sufficient to address the examiner's objection and in particular the Applicant argued that the Examiner failed to point to any specific portion of McNamara that taught the subject matter that the Examiner suggested was taught by the reference. In the Examiner's most recent office action the Examiner has identified additional portions of McNamara in support of the Examiner's argument. The Applicant thanks the

Examiner for directing the Applicant to the passages that the Examiner is relying upon in support of its arguments. The Applicant remains of the view however that the references do not teach all of the elements of the claims and furthermore that there is no motivation to combine the references. For at least these reasons the Applicant submits that its claims, as amended, are allowable over the cited references.

Claims 83-97 have been added and depend from claim 79. These claims are submitted to be allowable for the reasons advanced above with regard to claim 79 and, for the additional reason, that the added subject matter thereof is not taught or suggested by the prior art of record.

In summary, the Applicant submits that it has overcome all of the objections raised by the Examiner and requests reconsideration and allowance of the claims that have been submitted herewith.

Respectfully submitted,

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